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Canada. Geological Survey
J. B. Spruell

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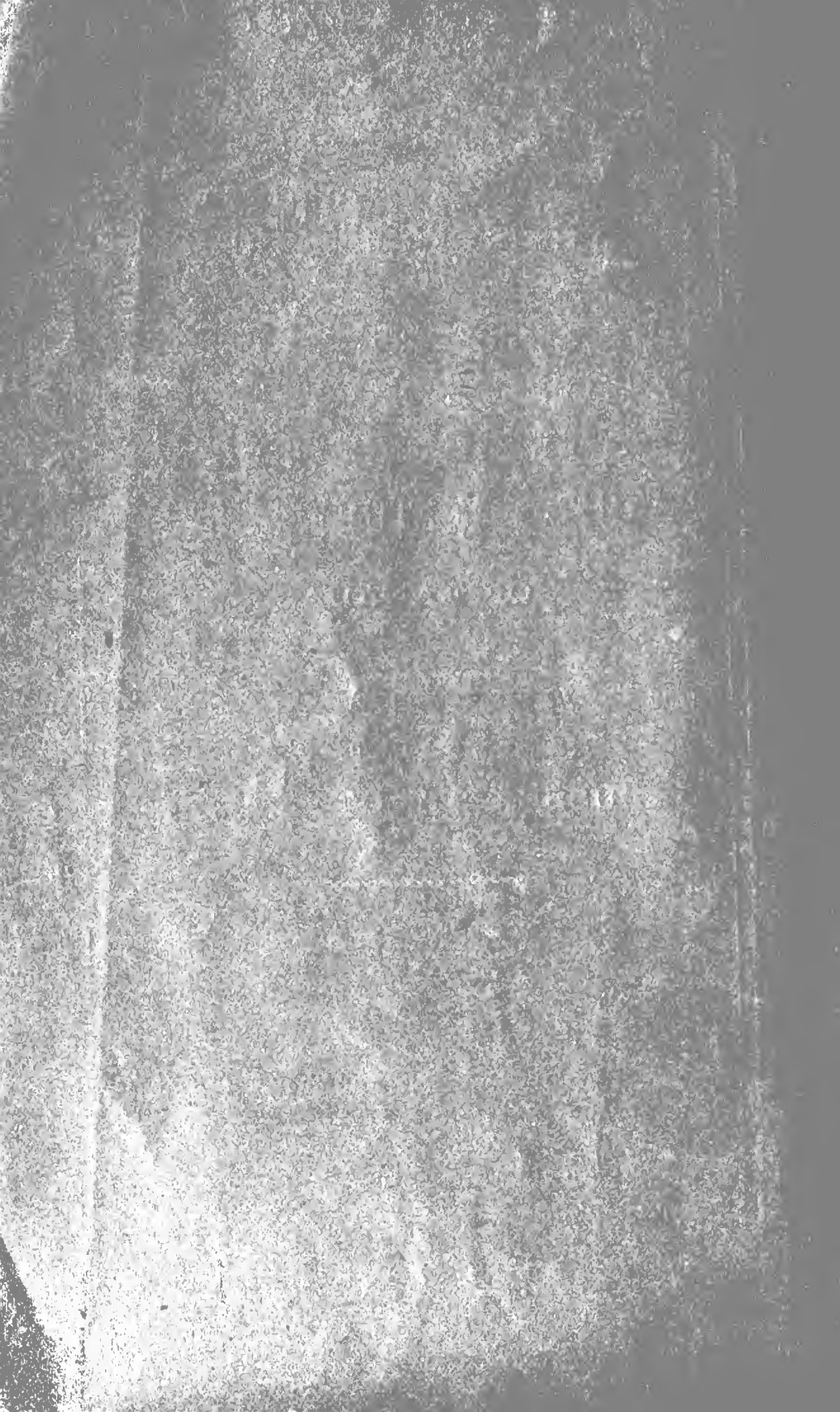
LIST OF PUBLICATIONS
— OF THE —
GEOLOGICAL
— AND —
NATURAL HISTORY SURVEY
OF CANADA.

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**GEOLOGICAL**  
AND  
**NATURAL HISTORY SURVEY**  
OF  
**CANADA.**

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40 VICTORIA.

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CHAP. 9.

An Act to make better provision respecting the Geological and Natural History Survey of Canada and for the maintenance of the Museum in connection therewith.

[Assented to 28th April, 1877.]

**H**ER Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. The Minister of the Interior shall continue to have the control and management of the Geological Survey of Canada, and there shall be a branch of the Department of the Interior known as the Geological Survey Branch, which shall, under the control of the Minister, take charge of and conduct the Geological Survey of the several Provinces and Territories of the Dominion.

2. The objects and purposes of the survey and museum shall be, to elucidate the geology and mineralogy of the Dominion, and to make a full and scientific examination of the various strata, soils, ores, coals, oils and mineral waters, and of its recent *fauna* and *flora* so as to afford to the mining, metallurgical and other interests of the country, correct and full information as to its character and resources.

3. It shall be the duty of the persons in charge of the said survey:—

1. To collect, classify and arrange such specimens as may be necessary to insure a complete and exact knowledge of the mineralogical resources of the several Provinces and Territories of Canada; to carry on palæontological investigations, to study and report upon the *fauna* and *flora* of the Dominion, and to make such other researches as will best tend to ensure the carrying into effect the object and purposes of this Act;

2. To continue to collect the necessary materials for a Canadian museum of natural history, mineralogy and geology;

3. To report from time to time, in such manner and form as the Minister may direct, their proceedings under this Act, and to furnish proper maps, diagrams, drawings and collections of specimens to illustrate the same.

4. The Director of the Geological Survey shall, as soon as may be after the close of each calendar year, make a full report to the Minister, of the proceedings and work of the Survey for the year, and the results thereof,

in such manner and form, and with such details, maps, diagrams and drawings as may be requisite to elucidate the same; and the Minister shall cause the same to be laid before Parliament, with such remarks, explanations and recommendations as he may think proper.

5. The Governor in Council may, from time to time, appoint a suitable person, to be the Director of the Geological Survey, with such assistants as may be necessary to carry out the provisions of this Act, and with such salaries or remuneration as the Governor in Council may determine; provided that such salaries shall be subject to the approval of Parliament.

6. The Director and persons appointed to permanent positions in the Geological Survey Branch of the Department of the Interior, shall be considered as being within the provisions of the Act thirty-third Victoria, chapter four, to provide for the superannuation of persons employed in the Civil Service, in certain cases.

7. The Governor in Council may, whenever he may think fit, direct the removal of the museum, and the officers and others connected with the Geological Survey Branch of the Department of the Interior, to the City of Ottawa.

8. The museum shall be opened to the public from ten a.m. until four p.m., Sundays excepted, and shall be furnished with such books, instruments and apparatus as may be necessary for scientific reference, and for the prosecution of the survey; and the Governor in Council may, from time to time, cause the enlargement of the museum, and the distribution of duplicate specimens to scientific, literary and educational institutions in Canada and other countries.

9. For the purpose of obtaining an accurate basis from which the geological and topographical features of the country may be ascertained, and for the purpose of connecting together local and partial surveys, the Director of the Geological Survey shall cause such topographical, geographical or other measurements or observations to be made, and monuments or marks to be placed, as may be deemed necessary for this purpose.

10. All railway and canal companies over which the Parliament of Canada has jurisdiction, shall, if incorporated after the passing of the Act thirty-first Victoria, chapter sixty-seven, furnish to the Geological Survey, without charge, certified copies of all plans and sections of their surveys; and all such companies theretofore incorporated, shall furnish such plans and sections upon the demand of the Director of the Geological Survey, and at the cost of the Department.

11. Persons employed in one branch of the Department may be directed by the Minister to perform any duty in or with respect to any other branch.

12. This Act shall come into force upon, from and after the first day of July, one thousand eight hundred and seventy-seven; and all former Acts respecting the Geological Survey of Canada shall then be repealed, except only as to rights acquired under or offences against the same.

# THE PUBLICATIONS

## OF THE

### GEOLOGICAL AND NATURAL HISTORY SURVEY OF CANADA.



#### REPORTS OF PROGRESS.

Report of Progress to 1843. Published in both English and French, Montreal 1845. pp. 159. Out of print.

This volume contains the first of the regular Reports of Progress published after the appointment of Logan as Provincial Geologist. It is premised by "Remarks on the mode of making a Geological Survey of Canada," and by a short "Preliminary Report" containing general observations on the Geology of Canada and the adjacent States. The Reports proper are by Logan and Alexander Murray, then Assistant Provincial Geologist, and relate chiefly to the geology of portions of Western Canada. Logan's celebrated section of the measures at the Joggins on the Bay of Fundy is included as an Appendix, and occupies 59 pages.

Report of Progress for 1884. Published in English and French, Montreal 1846. pp. English 110, French 119. English out of print.

Price of French copies, 50c.

Reports by Logan and Murray on the Geology of portions of the Gaspé Peninsula, with an Appendix including a section of the Coal Measures on the Bay Chaleur, New Brunswick, and a number of other sections.

Report of Progress for 1845-46. Published in English and French, Montreal 1847. pp. English 125, French 137. Out of print.

Contains a Report by Logan on the Geology of the Ottawa and some of its Tributaries, and one by Murray on the Gaspé Peninsula. An Appendix by T. S. Hunt gives a list of mineral springs occurring near the Ottawa and its tributaries, and analyses of a few ores, &c.

✓ wp B.S.S.  
1846

✓ app. c  
1847

- ✓ *App. C 1847* Report of Progress for 1846-47. Published in English and French, Montreal 1847. pp. English 66, French 70. Out of print.

Contains the following Reports by Logan and Murray:—

LOGAN—On the Geology and Economic Minerals of Lake Superior.

MURRAY—On the Geology of the Kaminitiquia and Michipicoten Rivers.

APPENDIX—Containing Statistics of Copper-mining and Copper-smelting in Great Britain.

- ✓ *App. S 1849* Report of Progress for 1847-48. Published in English and French, Montreal 1849. pp. English 165, French 171. Out of print.

Contains Reports by Logan, Murray and Hunt.

LOGAN—On the Geology of portions of Lower Canada, more particularly of the Eastern Townships.

MURRAY—On the North Coast of Lake Huron.

HUNT—On Various Minerals and Mineral Waters.

- Report of Progress for 1848-49. Published in English and French, Toronto 1850. pp. English 65, French 70. Out of print.

Contains the following Reports:—

MURRAY—On the Geology of parts of the Coast of Lake Huron, the Spanish River, &c.

HUNT—On Mineral Springs, Ores, &c.

- App. V 1850* Report of Progress for 1849-50. Published in English and French, Toronto, 1850. pp. English 115, French 120. Out of print.

Contains the following Reports:—

LOGAN—On the Geology of portions of Lower Canada, both North and South of the St. Lawrence.

HUNT—On Soils, Peat, Asphaltum, Mineral Springs, &c.

APPENDIX—Catalogue of some of the Economic Minerals and Deposits of Canada.

- App. O 1850* Report of Progress for 1850-51. Published in English and French, Quebec, 1852. pp. English 54, French 56. Out of print.

Contains the following:—

LOGAN—On the Gold of the Chaudière Region.

MURRAY—On the Geology of the Western Peninsula.

HUNT—On Various Minerals and Mineral Waters.

- ✓ *App. S 1849* Logan. Report on the North Shore of Lake Huron. Montreal 1849



Report of Progress for 1851-52. Published in English and French, Quebec, 1852. pp. English 121, French 129. Out of print.

Contains the following :—

LOGAN—On the Geology of the Counties of Beauharnois and the Lake of Two Mountains; on various Economic Minerals, and on the Industrial Exhibition of 1851 (London). A catalogue is given of the Canadian Minerals shown at this Exhibition.

MURRAY—On the Geology of the Region between the Ottawa, the St. Lawrence and the Rideau.

HUNT—On the Examination of a number of Minerals, Soils, Mineral Waters, &c.

Report of Progress for 1852-53. Published in English and French Quebec, 1854. pp. English 179, French 197. Out of print.

Contains the following :—

LOGAN—On the Geology of the North Shore of the St. Lawrence, between Montreal and Cape Tourment, and on Miscellaneous Economic Minerals.

MURRAY—On the Geology of the Region between Kingston and Lake Simcoe.

HUNT—On Mineral Waters, Various Minerals, Ores, &c.

✓ Report of Progress for the years 1853-54-55-56. Published Toronto, 1857. In English and French. pp. 494.\* With a large 4to. Atlas of Maps.

Price with Atlas, \$4.00.

This volume contains Reports by Logan, Murray, Richardson, Billings and Hunt, on subjects enumerated below.

LOGAN—On the Laurentian Rocks of Grenville, Chatham, St. Jerome &c., and the Economic Materials found in them.

MURRAY—Reports for 1853-56 inclusive, on the Topographical and Geological Features of the Region between the Ottawa River and Georgian Bay, as well as North of Lake Huron.

RICHARDSON—Report for 1856 on the Island of Anticosti, and the Mingan Islands.

BILLINGS—Report for 1856 on Fossils from Anticosti, and on New Fossils from the Silurian of Canada.

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\*Unless both are given, the number of pages always refers to the English edition.

**HUNT**—Reports for the years 1853-56 inclusive, containing numerous Analyses of Minerals, Rocks, and Mineral Waters, and observations (Report for 1855) on the Metallurgy of Iron, the Manufacture of Salts from Sea-water, &c.

The volume contains a Map illustrating the distribution of the crystalline limestones in the Grenville Region; a reduced map of Mr. Murray's Explorations, and a Map of Anticosti. The Atlas contains twenty sheets by Mr. Murray and two sheets by Sir W. E. Logan, embracing the results of their Surveys of the Region between Lake Huron and the Ottawa River.

✓ **Report of Progress for the Year 1857.** Published Toronto, 1858. In English and French. pp. 240. Five Maps.

Price, 50c.

This volume contains the following Reports :—

**LOGAN**—Remarks relating chiefly to the succeeding Reports.

**MURRAY**—On the Coast at the mouth of French River, Georgian Bay; on Echo Lake and its environs, and on the Limestone of Bruce Mines.

**RICHARDSON**—On part of the Gaspé Peninsula from Magdalen River to Gaspé Bay, and on Lake St. John.

**BELL**—On the Fauna of portions of the Lower St. Lawrence, the Saguenay, Lake St. John, &c.

**HALL**—Descriptions of Canadian Graptolites.

**BILLINGS**—On the Black River Limestone and the Limestone of Galt. Also descriptions of various Fossils.

**HUNT**—On Dolomites, Limestones, Fish Manures, &c.

**ASH** (Lieut. E. D.)—On the Longitude of some of the principal places in Canada, as determined by Electric Telegraph in the years 1856-57.

✓ **Report of Progress for the Year 1858.** Published Montreal, 1859. In English and French. pp. 263. Contains three Maps and a Section.

Price, 75c.

This volume contains the following Reports :—

**LOGAN**—On the Distribution of the Laurentian Limestones, and of the Drift, in the Grenville Region. Also on the Ramsay Lead Mine, the Acton Copper Mine, and Miscellaneous Economic Minerals.

**MURRAY**—On the country between the Thessalon River and Lake Huron, and between the Thessalon and the Mississagui.

**RICHARDSON**—On the Geology of a portion of the Gaspé Peninsula, including an examination of the Coast from the Marsouin River to Rivière du Loup.

HUNT—On Intrusive Rocks, Minerals from Silurian Rocks, and on the History of Magnesian Limestones.

An appendix to this volume includes the following:

Levels of the River Rouge, &c.

Localities of Copper Ores in the Silurian Rocks of Lower Canada.

Localities of Copper Ores in the Huronian Rocks, Mississagui River.

Catalogue of Animals collected by Mr. D'Urban in the Counties of Argenteuil and Ottawa.

Catalogue of Animals and Plants collected by Mr. R. Bell on the South-East side of the St. Lawrence, from Quebec to Gaspé.

✓ **Geology of Canada ; Report of Progress of the Geological Survey** from its commencement to 1863. With an Atlas of Maps and Sections. Published 1863 ; in English and in French. Large 8vo. pp. 983. Includes the more important facts published in all the preceding Reports. (For contents of Atlas, which may be had separately, see p. 17.)

Price of the Report : Cloth, \$5.00 ; Atlas, cloth, \$2.50.

"The style in which this work has been got up, the precision of the drawing, and the accuracy of the woodcuts, may almost challenge comparison with the execution of similar productions on this side of the Atlantic. There has been a steady persistence in the conduct of this remarkable survey, honourable alike to the successive Governments that have encouraged it, and to the officers who have carried out the work. No other Colonial Survey has ever yet assumed the same truly national character ; and the day may come—if ever the "Imperial Colony" shall claim and obtain independence—when the scientific public of a great nation, looking back upon the earlier dawnings of science in their land, shall regard the name of Logan, native born, with the same affectionate interest with which English geologists now regard the names of our great geological map makers, William Smith and De la Beche."—*London Saturday Review*.

"This large octavo, of 983 pages, illustrated with 498 woodcuts, and to be accompanied by an atlas of maps and sections, presents a condensed view of the work of the Canadian Survey from its commencement in 1863. It gives the results of the com-

bined labours of Sir W. E. Logan, Mr. Murray, Dr. Hunt and Mr. Billings, a staff not to be surpassed either in ability or energy, and aided also by several able assistants, of whom Mr. Richardson and Mr. Bell stand first. The value of the work to Canada can scarcely be over-estimated. It must be regarded as of vast importance, whether we consider readers abroad or at home, whether we consider scientific objects purely or those which are practical. Its mechanical execution is an evidence of the progress of the arts among us. Its publication to the world is a proof of the interest taken in science in this country, and of the enlightened patronage afforded by the Government to such investigations, and, at the same time, of the immense value of our mineral resources, as well as of the extent to which they have already been made available. It gives, for the first time, to geologists abroad the means of making themselves thoroughly acquainted with the geology of this country ; and it thus places Canada on a level with those older countries whose structure has been explored, and the knowledge of it made the common property of the world."—*Canadian Naturalist*.

✓ **Report of Progress, 1863-66.** Published Ottawa, 1866. In English and French. One vol. large 8vo, pp. 321. Out of print.

This volume contains the following Reports:—

**LOGAN**—Summary Report of Geological Investigations.

**RICHARDSON**—On the Geology of the Quebec Group in the Eastern Townships.

\***MICHEL**—On the Gold Region of Lower Canada. Price, 25c.

\***HUNT**—On Gold Assays of Quartz from Eastern Canada, Mineralogy of Gold Veins, and method of Gold-working. Price, 25c.

**MACFARLANE**—On the Geology and Economic Minerals of portions of the County of Hastings.

**MACFARLANE**—On the Laurentian, Huronian and Upper Copper-bearing Rocks of Lake Superior. With an Appendix on the Rocks and Cupriferous Beds of Portage Lake, Michigan.

**BELL**—On the Geology of the Grand Manitoulin Island.

**HUNT**—On the Geology and Mineralogy of the Laurentian Limestones; on Petroleum and Salt; on the Porosity of Rocks; and on Peat and its Applications.

**APPENDIX**—List of Copper Localities in Eastern Canada.

**Report of Progress, 1866-69.** Summary of Geological Investigations, by Sir W. E. Logan, F.R.S., &c. Published Ottawa, 1869. pp. 9.

✓ **Report of Progress from 1866 to 1869.** Published Montreal, 1870. In English and French. Large 8vo, pp. 475. The English edition is now out of print.

Price of French edition, \$2.00.

This volume contains the following Reports:—

\***LOGAN AND HARTLEY**—Reports on part of the Pictou Coal Field. With a coloured Geological Map.

Price, with an Appendix on Coal and Iron Ores, \$1.00.

**BELL**—On the Geology of the Manitoulin Island Group.

**RICHARDSON**—On the Region South of the St. Lawrence, between the Chaudière River and the Temiscouata Road. With a coloured Geological Map.

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\*Reports and maps marked thus can be procured separately at the prices attached.

- \*VENNOR—On the Geology of portions of Hastings, Peterborough and Frontenac Counties, Ontario. With a coloured Geological Map. Price, 60c.
- ROBB—On the Geology of a part of New Brunswick. With a Sketch-Map.
- \*HUNT—On the Goderich Salt Region. Price, 25c.
- \*HUNT—Notes on Iron and Iron Ores. Price, 25c.
- RICHARDSON—Report for 1869 on the North Shore of the Lower St. Lawrence.
- \*BELL—On the Geology of the North-West Coast of Lake Superior and the Nipigon District. Illustrated by a topographical Sketch-Map. Price, 75c.
- \*HARTLEY—Report on the Coals and Iron Ores of Pictou County, Nova Scotia; being an Appendix to Reports on the Pictou Coal Field. (*Vid. ante.*) Price, 60c.
- HARTLEY—Notes on coal from Springhill Coal Field. pp. 5.
- \*BELL, J., M.D.—Appendix on the Plants of the Manitoulin Islands. Price, 25c.

Postscript by Sir W. E. Logan, addressed to Alfred R. C. Selwyn.

NOTE.—Up to 1860 the Geological Reports were printed as Appendices to the Journals of the Legislative Assembly, in English and French. The Appendices in which they are to be found are as follows:—

|   |                                                    |                  |  |
|---|----------------------------------------------------|------------------|--|
|   | Session 1844-45.                                   | Appendix W.      |  |
| — | " 1846                                             | " G. G. G.       |  |
| — | " 1847                                             | " C.             |  |
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|   | " 1852-53                                          | " O.             |  |
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|   | " 1857 (Explorations for the years 1853-54-55-56.) | Appendix No. 32. |  |
|   | " 1860                                             | " No. 24.        |  |

#### SPECIAL REPORTS, &c.

- \*Remarks on the Mining Region of Lake Superior, addressed to the Committee of the Executive Council; and Report on Mining Locations claimed on the Canadian Shores of the Lake, addressed to the Commissioner of Crown Lands. By W. E. Logan. Published Montreal, 1847. pp. 31.

Price, 10c.

Esquisse Géologique du Canada, pour servir à l'intelligence de la Carte géologique et de la Collection des Minéraux économiques envoyées à l'Exposition Universelle de Paris, 1855. Par W. E. Logan et T. Sterry Hunt. Paris, 1855. pp. 100.

- \*Descriptive Catalogue of a Collection of the Economic Minerals of Canada, and of its Crystalline Rocks. Sent to the London International Exhibition for 1862. Published Montreal. Large 8vo, pp. 83.

Price, 25c.

- \*Notes on the Gold of Eastern Canada, being a Reprint of portions of various Reports of the Geological Survey of Canada, from 1848-1863. Published Montreal, 1864. pp. 40.

- \*Petroleum—Its Geological Relations considered with especial reference to its occurrence in Gaspé. With a Geological Map by R. Bell of a portion of Gaspé. By T. Sterry Hunt. Published Quebec, 1865. pp. 33.

Price, 50c.

- \*Canada—A Geographical, Agricultural and Mineralogical Sketch. By T. Sterry Hunt. Published Quebec, 1865. pp. 33.

Price, 25c.

- \*Esquisse Géologique du Canada, suivie d'un Catalogue Descriptif de la Collection de Cartes et Coupes géologiques, Livres imprimés, Roches, Fossiles et Minéraux économiques envoyées à l'Exposition Universelle de 1867. Par T. Sterry Hunt. Paris, 1867. pp. 72.

Price, 50c.

- \*Reports on the Gold Region of the County of Hastings. By Dr. T. Sterry Hunt and Mr. A. Michel. Transmitted by Dr. Hunt to the Hon. Commissioner of Crown Lands, January 29, 1867. Published Montreal, 1867. pp. 11.

Price, 10c.

- \*Report on the Gold Region of Nova Scotia. By T. Sterry Hunt. Published Ottawa, 1868. Large 8vo, pp. 48.

Price, 25c.

#### DESCRIPTIONS AND FIGURES OF CANADIAN ORGANIC REMAINS.

- Decade 1—Descriptions of twenty-nine species of Lower Silurian Fossils. By J. W. Salter. Illustrated with ten steel plates. Large 8vo, pp. 47. Published Montreal, 1859.

Price, \$1.00.

- Decade 2—A Monograph of the Graptolitidæ of the Quebec Group. By Prof. James Hall. Illustrated with twenty-nine steel plates. Large 8vo, pp. 151. Published Montreal, 1865.

Price, \$2.00.

**Decade 3—Monographs of Lower Silurian Cystidæ, and Asteriadæ.** By E. Billings. Description of the genus *Cyclocystoides*. By J. W. Salter and E. Billings. Monograph of the Palæozoic Bivalve Entomostraca of Canada. By Rupert Jones. Illustrated with eleven lithographed plates and numerous wood cuts. Large 8vo, pp. 102. Published Montreal, 1858.

Price, \$1.00.

**Decade 4—Monograph of the Lower Silurian Crinoidæ.** By E. Billings. Illustrated with ten lithographed plates and numerous wood cuts. Large 8vo, pp. 72. Published 1859.

Price, \$1.00.

**Catalogues of the Silurian Fossils of the Island of Anticosti, with descriptions of some new genera and species.** By E. Billings. Published Montreal, 1866. pp. 93.

Price, 25c.

**Palæozoic Fossils, containing descriptions and figures of new or little known species of Organic Remains from the Rocks of the Silurian and Devonian Formations.** By E. Billings.

Vol. I—1861-65—Published Montreal, 1865. Illustrated by 399 wood cuts. Large 8vo, Cloth. pp. 426.

Price, \$2.50.

#### MAPS.

**Geological Map of Canada and the adjacent Regions, including the other British Provinces, and parts of the United States.** By Sir W. E. Logan, F.R.S., &c. Published 1866. Scale 25 miles to one inch.

|                                        |         |
|----------------------------------------|---------|
| Price, in sheets. ....                 | \$18 00 |
| “ mounted on rollers. ....             | 24 50   |
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The **Geology of Canada** (Quebec and Ontario) is derived from the results of the Canadian Geological Survey; that of the other Provinces from the labours of Dr. J. W. Dawson, Professor Robb, Jukes, and others; while that of the United States is compiled under the authority of Professor James Hall, from various sources mentioned in the Atlas accompanying the “**Geology of Canada**.”

This truly great and beautiful Map will at once recommend itself to all lovers of Geological Science in America. It consists of eight sheets, each 24 x 20½ inches, and, when mounted on rollers, measures 8 ft. by 3 ft. 7 in. It is engraved on steel, in the best style, and is coloured by hand in 33 colours, showing the different formations. The territory mapped extends from Labrador on the East, to the Red River on the West, and from Hudson's Bay on the North, to Northern Virginia on the South. Besides the Geology of the British Provinces (the main object of the Map), the Geology of the Northern United States is fully shown; and it is as completely a Geological Map for the States of New York, Pennsylvania, Ohio, Indiana, Illinois, New Jersey, Vermont, Michigan, Missouri, Iowa, Wisconsin and Minnesota, as it is for Canada. The Coal Regions are shown with precision from Cape Breton to Missouri.

"We have at length the pleasure of announcing the appearance of this important and long-looked for contribution to American geology. The legend of the Map informs us that the geological details for Canada, comprising the former Provinces of Upper and Lower Canada (now Ontario and Quebec) are furnished by the Geological Survey under the direction of Sir William E. Logan. He has himself compiled the geology of the various States of the Union, under the supervision of Prof. Hall, from various sources which are mentioned in detail in the pre-

face to the Atlas of the Geology of Canada (published in 1865) where he tells us that this portion of the work was done 'with the approval of Prof James Hall, who has freely placed all his materials at the disposal of the compiler, and aided by his intimate personal knowledge of the geology of a greater part of the region represented.' For the geology of the Provinces of New Brunswick, Nova Scotia and Newfoundland, also, the most authentic printed and manuscript maps were consulted, as described in the Atlas just referred to."—*Silliman's Journal*."

An Atlas to Accompany the Report of Progress for 1853-56, containing twenty-two folio maps of various Lakes and Rivers between Lake Huron and the River Ottawa. Published Toronto, 1857.

Large 4to, half bound. Price, with the Report, \$4.00.

The Maps are on a scale of one inch to a mile and lithographed on sheets of twenty-two by thirty-three inches. They are as follows:—

I—Maps showing Explorations on the North Shore of Lake Huron and thence Eastward to the Ottawa.

1. Spanish River.
2. Spanish River, with White-Fish Tributary and White-Fish Lake ; White-Fish River with Lakes Panache and Lavase, and Round Lake.
3. Mouth of the White-Fish River, and Coast of Lake Huron.
4. Wahnapiitæping Lake and Wahnapiitæ River, with Maskanonge Lakes and River.
5. Wahnapiitæ River.
6. Wahnapiitæ River, with Channels and Mouths of French River.
7. Sturgeon River.
8. Sturgeon River and West end of Lake Nipissing.
9. French River.
10. East end of Lake Nipissing and Nahmanitigong River, with part of Mattawa River.
11. Mattawa River and part of Ottawa River.

II—Maps showing Explorations between the East Shore of Lake Huron and the Ottawa River.

- 12 and 13. Meganatawana River, with miscellaneous Lakes.



14 to 18 inclusive. Muskoka and Petewahweh Rivers, and numerous Lakes.

III—Maps of Bonne-chère, Madawaska and Shawashkong Rivers and sources of the Ottonabee.

19. Bonne-chère River with Mud Lake and Clear Lake.

20. Bonne-chère River with Golden and Round Lakes, and Little Madawaska River, Lake Kamaniskaik, and Madawaska River, and South-west Branch or Shawashkong River.

21. Shawashkong River, with Kaijick Manitou and Papineau Lakes.

22. Drag Lake, Kah-shah-gah-wigamog Lake, Gull River, Gull Lake and Balsam Lake.

An Atlas of Maps and Sections to Accompany the Report of Progress of 1863—Published Montreal, 1865. Large 8vo, Cloth.

Price, \$2 50.

This Atlas contains the following Maps and Sections:—

\*Coloured Geological Maps of portions of the British Provinces and the United States.

Price, \$1.50.

\*Coloured Maps showing the distribution of the Laurentian Rocks in parts of the Counties of Ottawa, Terrebonne, Argenteuil and Two Mountains. Scale 7 miles to 1 inch.

Price, 25c.

\*Coloured Map showing the distribution of the Huronian Rocks between Rivers Bachehwahnung and Mississagui—the typical Huronian Region of Mr. Murray. Scale 8 miles to 1 inch.

Price, 25c.

\*Coloured Map showing the distribution of Rocks belonging to the Potsdam, Quebec and Trenton Groups on the East side of Lake Champlain. Scale 2 miles to an inch.

Price, 25c.

Five uncoloured sections of these Rocks.

Uncoloured Map showing the distribution of Limestone Conglomerates in the Quebec Group at Point Levis.

Uncoloured section of these Rocks.

\*Map (partly coloured) showing the distribution of various Superficial

Deposits between Lake Superior and Gaspé.

Price, 25c.

\*Four plates of coloured Geological Sections illustrating the Geology of Canada.

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The following is a list of Maps accompanying some of the Reports enumerated on the preceding pages.

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Map showing the distribution of Crystalline Limestones of the Laurentian Series in various Townships between Grenville and Rawdon. Scale 3 miles to 1 inch.

Two Index Maps of Atlas (see p. 16) showing Exploration between Lake Huron and the Ottawa. Scale 10 miles to an inch.

Map of the Island of Anticosti. Scale 9 miles to an inch.

Report of Progress for 1857.

Map showing the distribution of the Huronian Limestone between Root River and Bruce Mines.

Map showing the distribution of the Laurentian and Lower Silurian Rocks in the vicinity of Lake St. John.

Topographical Map of the Magdalen River.

Report of Progress for 1858.

Map showing the distribution of Crystalline Limestones of the Laurentian Series in the Counties of Argenteuil and Ottawa.

Map showing the distribution of the Huronian Rocks between Rivers St. Mary and Mississague.

Map showing the distribution of the Devonian and Silurian Formations in a part of Gaspé. By Robert Bell.

Report of Progress for 1866-69.

\*Coloured Geological Map of the Pictou Coal Field, Nova Scotia. Scale 1 inch to a mile.

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#### NOTE.

In December, 1869, Sir William Logan retired from the Directorship, and was succeeded by the present Director A. R. C. Selwyn.

Report of Progress, 1869-70. Summary of Geological Investigations,  
by Alfred R. C. Selwyn. Published Ottawa, 1870. pp. 14.

Report of Progress for 1870-71. Published Ottawa, 1872. In English  
and French. Large 8vo, pp. 351. Price, \$1.25.

This volume contains the following Reports :—

SELWYN—Summary Report of Geological Investigations.

BAILEY AND MATTHEW—On the Geology of Southern New Brunswick.  
pp. 228.

ROBB—Supplementary Report on the Geology of North-Western New  
Brunswick.

SELWYN—Notes of Observations on the Gold Fields of Quebec and  
Nova Scotia.

RICHARDSON—On the Geology of the Country North of Lake St.  
John.

VENNOR—Abstract of a Report on the Geology of parts of the Coun-  
ties of Frontenac, Leeds and Lanark, Ontario.

BROOME—On the Phosphate of Lime and Mica found in North and  
South Burgess.

BELL—On the Country North of Lake Superior, between the Nipigon  
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† Published in French in Sessional Documents of the House of Commons  
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1873. pp. 156.

**RICHARDSON**—On the Coal Fields of the East Coast of Vancouver Island. With a Map of their Distribution. Also a note by Dr. Dawson on Fossil Plants, and Analyses of Coals, &c., by Dr. Hunt.

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**Three Sheets Geological Map of Southern New Brunswick, to illustrate the Annual Reports of Messrs. Bailey, Matthew and Ells, up to 1878.** Scale 4 miles to 1 inch.

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**Map illustrating the distribution of some of the more important Trees in British Columbia.** G. M. Dawson. Report B. Scale 50 miles to 1 inch.

**Map of part of British Columbia and the North-West Territory, from the Pacific Ocean to Fort Edmonton (three sheets).** In portfolio, accompanying report. G. M. Dawson. Scale 8 miles to 1 inch.

**Map showing the General Northern Limits of the Principal Forest Trees of the Dominion of Canada, east of the Rocky Mountains.** In portfolio, accompanying report. Robert Bell. Scale 80 miles to 1 inch.

#### Report of Progress for 1880-81-82.

**Index Map of Coal and Lignite Outcrop in the Bow and Belly River District.** G. M. Dawson. Report B. Scale 10 miles to 1 inch.

**Five Sheets Geological Map of Northern and Eastern New Brunswick, with a portion of the Gaspé Peninsula.** R. W. Ells. Scale 4 miles to 1 inch.

**Map showing approximately the Geology of the Basin of Moose River.** Robert Bell. To illustrate Reports from 1875-77 and 1881. Scale 8 miles to 1 inch.



Plan of Moose River from the neighbourhood of Moose Factory to James' Bay. Robert Bell. Report C. Scale 2 miles to 1 inch.

Geological Map of the Lake of the Woods and adjacent country. Robert Bell. Report C. Scale 4 miles to 1 inch.

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A Topographical Map of the Eastern Townships (in four sheets) embracing an area of 26,121 square miles, from St. Jérôme and Lake of the Two Mountains, on the west, to New Hampshire and Maine Boundary, on the east, and from latitude 45° to 47° 50' north. Scale 4 miles to an inch.

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Price, \$4.00.

#### MUSEUM AND LIBRARY.

The Geological and Natural History Museum and Headquarters of the Survey were, in accordance with an Act of the Dominion Parliament, 40 Vic., cap. 9, sec. 7, removed from Montreal to Ottawa, and are now established in a three-story stone building on the corner of Sussex and George streets.

The large increase of visitors to the Museum, since its removal from Montreal, fully justifies the action of the Government in transferring it to the Capital. The largest number of names entered in the register of visitors for any one year, at Montreal, was 1,652, and this number, in 1880, was reduced to 1,183; whereas, at Ottawa, at the end of the first year, there were 9,549 names registered; at the end of the second year 10,806, and at the end of the third 12,325.

The ground floor contains offices, library and laboratory. On the first floor there are two rooms devoted to museum purposes—the larger one, 103 feet long by 24 feet wide, contains upwards of 4,000 geological and mineralogical specimens, arranged in cases to illustrate the economic and scientific geology of the Dominion. The specimens are labeled, showing the localities from which they were obtained, and the formations to which they belong. The economic collection is arranged under the following heads:—

I. Metals and their Ores.

II. Fossil Fuel.

III. Minerals applicable to certain Chemical Manufactures, and their Products (see also under IV).

IV. Mineral Manures (see also under III).

V. Mineral Pigments and Detergents.

VI. Salt, Brines and Mineral Waters.

VII. Materials applicable to Common and Decorative Construction.

## VIII. Refractory Materials, Pottery Clays and Pottery.

## IX. Materials for Grinding and Polishing.

## X. Minerals applicable to the Fine Arts and to Jewelry.

In the smaller room on the same floor (22 ft. 6 in. by 17 ft. 8 in.) there is a small collection of foreign minerals which, as opportunities occur, will be augmented ; also, a collection of specimens of native woods.

The rooms on the second floor are of the same dimensions as those on the first floor. The larger one contains upwards of 11,000 specimens of Canadian fossils, representing over 3,000 species ; also, about 6,000 species of shells comprising upwards of 14,000 specimens, most of which are exotic.

In the smaller room on this floor there is a small ethnological collection, chiefly from the Indians of the Pacific Coast. A larger collection of Indian relics, mainly from Ontario, was recently acquired. It contains upwards of 3,500 specimens, but owing to want of available space they cannot, at present, be exhibited.

The Museum possesses an Herbarium containing upwards of 7,000 specimens of the North American flora, including a nearly complete series of plants indigenous to Canada.

It contains also the commencement of a collection of native mammals and birds which, however, includes a few very rare Arctic and North-Western species. There are, at present, 24 species of mammals and about 70 species of birds, represented by 140 specimens

In the Library there are upwards of 5,500 volumes, comprising standard works of reference on geology, mineralogy, metallurgy, chemistry and natural history. Persons desiring to consult any volume can do so, by applying to the Librarian.

The Museum is open to visitors from 10 a. m. to 4 p. m. Admission free.

OTTAWA, March, 1884.

ADDITIONAL PUBLICATIONS ISSUED BY THE GEOLOGICAL AND  
NATURAL HISTORY SURVEY OF CANADA, SINCE THE LIST  
OF 1884 WAS PRINTED.

**Report Progress for 1882-83-84.** Published Montreal, 1885. English and French. Large 8vo., pp. 786. With Maps, Plates, Sections and Illustrations.

Price, \$3.25.

This volume contains the following Reports :—

SELWYN—Summary Reports by the Director.

Additions to the Library.

BAUERMAN—Report on the Geology of the Country near the Fortyninth Parallel of North Latitude, West of the Rocky Mountains, from Observations made in 1859-61.

DAWSON—Report on the Region in the vicinity of Bow and Belly Rivers, N.W.T.

APPENDIX I—List of Elevations.

APPENDIX II—Blackfoot Indian Names of Places.

APPENDIX III—Analyses of Ironstones.

BELL—Report on part of the Basin of Athabasca River, N.W.T.

LAFLAMME—Report of Geological Observations in the Saguenay Region.

BELL—Observations on Labrador Coast, Hudson Strait and Bay.

ELLS—Report on Explorations and Surveys in the interior of Gaspé Peninsula and Prince Edward Island.

LOW—Report on Explorations and Surveys in the interior of Gaspé Peninsula.

BAILEY—Report of Explorations and Surveys in portions of York and Carleton Counties, N.B.

CHALMERS—Report on the Surface Geology of Western New Brunswick, with special reference to the area included in York and Carleton Counties.

FLETCHER—Report on the Geology of Northern Cape Breton.

TORRANCE—Report on Apatite deposits, Ottawa County, Quebec.

COSTE—Report on the Gold Mines of the Lake of the Woods.

WILLIMOTT—Report of Observations in 1883 on Mines and Minerals, in Ontario, Quebec and Nova Scotia.

HOFFMANN—Analyses of Coals and Lignites of the North-West Territory.

HOFFMANN—Chemical Contributions to the Geology of Canada from the Laboratory of the Survey.

Summary Report of the Operations of the Geological and Natural History Survey, to 31st December, 1885, being Part III., Annual Report of the Department of the Interior, 1885.

Price, 15c.

Annual Report, 1885. Published Montreal, 1886. English and French. Large 8vo., pp. 834. With Maps, Plates, Sections and Illustrations.

Price, \$2.0 .

This volume contains the following Reports, which are also published separately :—

(A) SELWYN—Summary Report by the Director for years 1884 and 1885. Price, 25c.

(B) DAWSON—Preliminary Report on the Physical and Geological Features of that portion of the Rocky Mountains between Latitudes 49° and 51° 30'. With Maps. Price, 25c.

(C) McCONNELL—On the Cypress Hills, Wood Mountain and adjacent country. With Maps. Price, 25c.

(CC) LAWSON—On the Geology of the Lake of the Woods Region, with special reference to the Keewatin (Huronian ?) Belt of the Archaean Rocks. With Map. Price, 25c.

(D) LOW—Report of the Mistassini Expedition, 1884-85. With Map. APPENDIX I—List of Birds collected on Lake Mistassini, by Jas. M. Macoun.

APPENDIX II—List of Plants collected at Lake Mistassini, &c., by Jas. M. Macoun.

APPENDIX III—Meteorological Observations.

Price, 15c

(DD) BELL—Observations on the Geology, Zoology and Botany of Hudson's Strait and Bay. With Map of Ottawa Islands.

APPENDIX I—Lists by Prof. Macoun, of Plants collected in Newfoundland.

APPENDIX II—Partial List of Insects collected in 1885, by Dr. R. Bell. Price, 15c.

- (E) ELLS—On the Geological Formations of Eastern Albert and Westmoreland Counties, New Brunswick, and of portions of Cumberland and Colchester Counties, Nova Scotia. With Map. Price, 20c.
- (G) BAILEY—Explorations and Surveys in portions of the Counties of Carleton, Victoria, York and Northumberland, New Brunswick. With Map. Price, 20c.
- (GG) CHALMERS—Preliminary Report on the Surface Geology of New Brunswick. Price, 20c.
- (K) COSTE—Observations on Mining Laws and Mining in Canada, with suggestions for the better development of the Mineral Resources of the Dominion. Price, 15c.
- (M) HOFFMANN—Chemical Contributions to the Geology of Canada, from the Laboratory of the Survey Price, 15c.

### MAPS.

The following is a List of Maps accompanying the foregoing Reports :—

#### Report of Progress, 1832-84.

1. Geological Map of the Region in the vicinity of Bow and Belly Rivers. Scale 8 miles to 1 inch. Price, 10c.
2. Map showing Wooded and Prairie Districts, &c, in the Region in the vicinity of Bow and Belly Rivers. Scale 8 miles to 1 inch. Price, 10c.
3. Map of part Athabasca River. Scale 8 miles to 1 inch. Price, 10c.
4. Ten Sheets Geological Map of New Brunswick, Quebec and Prince Edward Island Scale 4 miles to 1 inch. Numbers 1 N.W., New Brunswick; 5 S.W., New Brunswick and Prince Edward Island; 5 N.W., Prince Edward Island; 5 S.E., Prince Edward Island; 3 N.E.; 3 N.W.; 6 N.W.; 7 S.W.; 15 S.E.; 15 S.W., Quebec. Price, 10c. per sheet.
5. Twenty-four Sheets Geological Map of Cape Breton. Scale 1 mile to an inch. These sheets are numbered 1 to 24. Nos. 22 and 24 embrace adjacent parts of Nova Scotia. Price, 10c. per sheet.
6. Panoramic View of Notre Dame Mountains, Gaspé, to illustrate Report by A. P. Low. Price, 10c.

## Annual Report, 1885.

1. Reconnaissance Map of a portion of the Rocky Mountains between Latitudes 49° and 51° 30'. Geologically coloured. Price, 10c.
2. Geological Map of part of the Cascade Coal Basin, Rocky Mountains. Price, 10c.
3. Geological and Topographical Map of the Cypress Hills, Wood Mountain and adjacent country. Price, 10c.
4. Map showing Wooded Tracts and character of Surface of the Cypress Hills, Wood Mountain and adjacent country. Price, 10c.
5. Geological Map of the Northern part of the Lake of the Woods and adjacent country. Price, 10c.
6. Map of Lake Mistassini, with Geological Boundaries. Price, 10c.
7. Chart of the Ottawa Islands, Hudson Bay. Price, 10c.
8. Sheet No. 4 N.W., New Brunswick and Nova Scotia. Price, 10c.
9. Sheet No. 2 S.W., New Brunswick. Price, 10c.

## SPECIAL REPORTS.

- Catalogue of Canadian Plants. Part 2. Gamopetalæ. By John Macoun, M.A., F.L.S., F.R.S.C. Published Montreal, 1884. pp. 398. cc, 25c.
- Contributions to Canadian Palæontology. Vol. 1, PART I—Report on the Invertebrata of the Laramie and Cretaceous Rocks of the vicinity of the Bow and Belly Rivers and adjacent localities, in the North-west Territory. By J. F. Whiteaves, F.G.S., F.R.S.C., &c. Published Montreal, 1885. Large 8vo., pp. 89. Illustrated by eleven lithographic plates. Price, 50c.
- Descriptive Catalogue of a Collection of the Economic Minerals of Canada. By the Geological Corps (Colonial and Indian Exhibition, London, 1886). Published London, 1886. pp. 172. Price, 15c.
- Catalogue of Canadian Plants. Part 3. Apetalæ. By John Macoun, M.A., F.L.S., F.R.S.C., Published Montreal, 1886. pp. 228. Price, 25c.



